

REMARKS

Claim 1 has been amended to incorporate therein the recitation of claims 2 and 5. Claims 2 and 5 have been canceled. New independent claim 19 is the combination of claims 1, 2 and 6. Claim 6 has been canceled.

Claim 18 directed to a non-elected invention has been canceled. Applicants reserve the right to file a divisional application directed to the canceled subject matter.

Claims 3, 4, 7, 10, 11, 13, 14, 15 and 16 have been amended to depend from claim 1 or claim 19 in the alternative.

In response to the claim objection, claim 1 has been amended to clearly recite that each of both the main chain in said methylene group-containing fluoropolymer (A) is a carbon-carbon double bond. Also, claims 13 and 17 have been amended to describe LIM and FIPG without abbreviations. Support is found, for example, at page 32, lines 30-35 of the specification.

Entry of the amendments and withdrawal of the claim objections is respectfully requested.

Review and reconsideration on the merits is requested.

Claims 1-5 and 7-17 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,554,689 to Langstein et al. Claims 1 and 3-17 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 4,057,566 to Carter et al, U.S. Patent 4,100,136 to Carter et al or EP 527,008 A1 to Takago et al.

Applicants traverse, and respectfully request the Examiner to reconsider in view of the amendment to the claims, the Declaration evidence submitted herewith and the following remarks.

The fluoropolymer compositions of the amended claims 1 and new claim 19 comprise a methylene group-containing fluoropolymer (A), a hydrosilylation catalyst (B) and a hydrosilylation reaction capable compound (C). Each of both the main chain termini in said methylene group-containing fluoropolymer (A) is a carbon-carbon double bond or an Si-H group. The fluoropolymer composition of the invention utilizes a hydrosilylation reaction, which serves as the curing reaction. Also, since each of both the main chain termini of the methylene group-containing fluoropolymer (A) is a carbon-carbon double bond or an Si-H group, the cured material thereby obtained can have improved mechanical strength and so forth (page 33, lines 21-29 of the specification).

Patentability of New Claim 19:

New claim 19 is the combination of claims 1, 2 and 6. As claimed in claim 19, both the main chain termini in the methylene group-containing fluoropolymer (A) are Si-H groups.

The fluoroelastomer of Langstein et al does not have crosslinking functional groups at both ends of the polymer, and therefore does not disclose the fluoropolymer (A) of the composition of claim 19.

Carter '566, Carter '136 and EP '088 only disclose a fluorocarbon siloxane polymer. Such disclosure relating to a fluorocarbon siloxane polymer does not lead one skilled in the art to provide crosslinking sites at both ends in the case of a fluoropolymer as explained in detail below.

In the case of a fluoroelastomer, providing crosslinking functional groups at both ends of the polymer as required by the present claims is largely different from providing crosslinking functional groups in the middle of the chain as taught by Langstein et al. The Experimental Example as set forth in the Declaration under Rule 132 of Tatsuya Morikawa submitted herewith

(corresponding to an embodiment of Langstein et al) demonstrates a result different from that of the present invention. Namely, the cured material corresponding to Langstein et al did not maintain a sheet form after immersing in acetone.

Therefore, it is respectfully submitted that the fluoropolymer composition of new claim 19 defines novel subject matter and is patentable over Carter '566, Carter '136 or EP '008 each considered alone or in combination, or further in view of Langstein et al.

Patentability of Amended Claim 1:

Claim 1 has been amended to incorporate therein the recitation of claims 2 and 5. That is, as claimed in amended claim 1, both the main chain termini in the methylene group-containing fluoropolymer (A) is a carbon-carbon double bond. Langstein et al discloses a mixture comprising a lateral double bond-containing fluoroelastomer resulting from polymerization of a small amount of a monomer containing at least two olefinic double bonds, for example, triallyl isocyanurate, and an Si-H group-containing silicone elastomer and so forth, together with a specific catalyst, and which is to be cured by a hydrosilylation reaction.

However, there is no disclosure in Langstein et al of the claimed methylene group-containing fluoropolymer (A) in which both the main chain termini in the methylene group-containing fluoropolymer (A) is a carbon-carbon double bond. Rather, the fluoroelastomer of Langstein et al has double bonds in the middle of the chain but not at either of the chain termini. That is, amended claim 1 is not anticipated by Langstein et al. Also, because amended claim 1 includes the recitation of claim 2, amended claim 1 also is not anticipated by any of Carter '566, Carter '136 and EP '008.

As mentioned above, the fluoroelastomer of Langstein et al has double bonds in the middle of the chain but not at either of the chain termini. Also, the chain portions from a

crosslinking site to the relevant chain terminus act as plasticizers, causing a problem, namely, lowering the mechanical strength of the cured material. Moreover, there is no disclosure or suggestion in Langstein et al relating to the effect in connection with a fluoroelastomer having an olefinic double bond at a chain terminus. Therefore, even if the fluoroelastomer of Langstein et al were used in the composition of Carter '566, Carter '136 and EP '088, the resulting combination would not achieve the invention of amended claim 1.

The results of the Experimental Example as set forth in the Rule 132 Declaration corresponding to an embodiment of Langstein et al demonstrate that the cured material did not maintain a sheet form after immersion in acetone, which further supports the unobviousness of the invention.

For the above reasons, it is respectfully submitted that the amended claims and new claim 19 are not anticipated by any of Langstein, Carter '566, Carter '136 and EP '008, and withdrawal of the foregoing rejections under 35 U.S.C. § 102(b) is respectfully requested.

Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Langstein et al in view of Carter '566, Carter '136 or EP '008.

Claim 6 has been combined with claims 1 and 2 to form new claim 19. Claim 6 has been canceled. Patentability of new claim 19 is discussed above further in view of the Declaration evidence submitted herewith.

Withdrawal of the foregoing rejection under 35 U.S.C. § 103(a) is respectfully requested.

Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Carter '566, Carter '136 or EP '008, each individually in view of Langstein et al.

The limitation of claim 2 has been incorporated into claims 1 and 19, along with claims 5 and 6, respectively. Claim 2 has been canceled.

Patentability of amended claim 1 is discussed above further in view of the Declaration evidence submitted herewith.

Withdrawal of the foregoing rejection under 35 U.S.C. § 103(a) is respectfully requested.

Withdrawal of all rejections and allowance of claims 1, 3, 4, 7-17 and 19 is earnestly solicited.

In the event that the Examiner believes that it may be helpful to advance the prosecution of this application, the Examiner is invited to contact the undersigned at the local Washington, D.C. telephone number indicated below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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